19. (Amended) A method for manufacturing a semiconductor device including a member which is partially silicified, comprising the steps of:

(a) forming a metal film whose main component is cobalt on a semiconductor layer of a substrate;

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(b) performing first thermal annealing to cause a silicification reaction between the metal film and the semiconductor layer so as to form a polycrystalline first cobalt silicide film that is rich in cobalt on the semiconductor layer;

(c) removing an unreacted portion of the metal film after the step (b); and

(d) after the step (c), performing second thermal annealing at a temperature of 725°C or less to change the first cobalt silicide film into a second cobalt silicide film, the second cobalt silicide film being at least a part of the member.

21. (Amended) A method for manufacturing a semiconductor device including a member which is partially silicified, comprising the steps of:

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(a) forming a metal film on a semiconductor layer of a substrate;

(b) performing first thermal annealing to cause a silicification reaction between the metal film and the semiconductor layer so as to form a polycrystalline first silicide film that is rich in metal on the semiconductor layer;

(c) removing an unreacted portion of the metal film after the step (b);

(d) introducing nitrogen into the semiconductor layer in a step after the step (a) and before the step (c); and

(e) after the step (d), performing second thermal annealing to change the first silicide film into a second silicide film, the second silicide film being at least a part of the member.

23. (Amended) The method for manufacturing a semiconductor device of claim

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21, wherein the semiconductor layer is a part of a source/drain region of a MISFET, the method further comprising, before the step (a):

a step of forming a gate insulative film and a gate electrode on an active region including the semiconductor layer;

a step of forming an insulative side wall on a side surface of the gate electrode; and

a step of forming a source/drain region by implanting impurity ions into each of portions of the active region on both sides of the gate electrode and then activating the impurity, wherein the step (d) is performed after the step of forming a source/drain region and before the step (a).

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24. (Amended) The method for manufacturing a semiconductor device of claim [19] 21, further comprising a pre-cleaning step of irradiating a surface of the semiconductor layer with plasma before the step (a), wherein the step (d) is performed by introducing nitrogen-containing plasma in the pre-cleaning step.

Please add the following new claims.

-- 34. (New) The method for manufacturing a semiconductor device of claim 1, wherein the metal film is a cobalt film, and the first silicide film is a cobalt silicide film that is rich in cobalt.

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35. (New) The method for manufacturing a semiconductor device of claim 34, wherein the cobalt silicide film that is rich in cobalt is a compound of Co_2Si and CoSi.

36. (New) The method for manufacturing a semiconductor device of claim 19, wherein the first cobalt silicide film that is rich in cobalt is a compound of Co_2Si and CoSi.

37. (New) The method for manufacturing a semiconductor device of claim 21, wherein the metal film is a cobalt film, and the first silicide film is a cobalt silicide film that is rich in cobalt.

38. (New) The method for manufacturing a semiconductor device of claim 37, wherein the cobalt silicide film that is rich in cobalt is a compound of Co_2Si and CoSi.

39. (New) The method for manufacturing a semiconductor device of claim 7, wherein in the step (d), the semiconductor layer is changed into an amorphous state to a depth at which the third silicide film is being converted due to the second thermal annealing in the step (e).

40. (New) The method for manufacturing a semiconductor device of claim 21, wherein in the step (d), the semiconductor layer is changed into an amorphous state by ion implanting the nitrogen therein to the depth at which the second silicide film is being converted due to the second thermal annealing in the step (e).

A5 cont'd

41. (New) The method for manufacturing a semiconductor device of claim 1, wherein the third silicide film has a bamboo structure.--